

IN THE CLAIMS

Amendments To The Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application

Listing of Claims:

1. (Currently Amended) A collision determination system for detecting a collision of a vehicle with an object and outputting an actuating signal to collision mitigating devices, said system comprising:

a plurality of acceleration sensors for mounting to a front portion of said vehicle to detect accelerations of movement of said front portion in the vehicle longitudinal direction;

~~a plurality of timers each associated with an acceleration sensor for holding for a set time a signal representing a detected acceleration that is equal or more than a set value;~~

an actuation permitting means for outputting an actuation permitting signal for a fixed time period when one of said acceleration sensors detects an acceleration equal to or more than a set value within a set time after another acceleration sensor detects an acceleration equal to or more than the set value, said actuation permitting means including a plurality of timers, each of said timers being associated with a respective one of the acceleration sensors, said each of said timers holding for the set time a signal representing the acceleration detected by the associated acceleration sensor which is equal to or more than the set value;

a collision detecting means for outputting a collision detection signal when determining that a collision with a given object occurs based on acceleration detected by at least one of said acceleration sensors; and

an actuating signal outputting means for outputting an actuating signal to said collision mitigating devices when receiving both an actuation permitting signal from said actuation permitting means and a collision detection signal from said collision detecting means.

2. (Original) A collision determination system according to claim 1, wherein a control unit including said actuation permitting means, collision detecting means and actuating signal outputting means is mounted in a position different from that of said acceleration sensors.

3. (Currently Amended) A collision determination system for detecting a collision of a vehicle with an object and outputting an actuating signal to collision mitigating devices, said system comprising:

a plurality of acceleration sensors for mounting to a front portion of said vehicle to detect accelerations of movement of said front portion in the vehicle longitudinal direction;

~~a plurality of timers each associated with an acceleration sensor for holding for a set time a signal representing a detected acceleration that is equal or more than a set value;~~

a plurality of collision detecting means provided in correspondence with said respective acceleration sensors to perform calculations with said detected accelerations detected by said acceleration sensors, thereby to detect a collision of said vehicle with said object;

a plurality of acceleration comparing means provided in correspondence with said respective acceleration sensors to determine whether or not said detected accelerations detected by said acceleration sensors are equal to or more than a set value; and

an actuating signal outputting means for outputting an actuating signal when determining that any of said collision detecting means detects a collision and any of said acceleration comparing means referring to the corresponding acceleration sensor which is different from the acceleration sensor referred to by said collision detecting means detecting the collision has detected an acceleration equal to or more than the set value during a predetermined past time period before the collision detection, said acceleration comparing means each including a timer, said each of said timers holding for the predetermined past time period a signal representing the acceleration detected by the corresponding acceleration sensor which is equal to or more than the set value.

4. (Original) A collision determination system according to claim 3, wherein said actuating signal outputting means outputs an actuating signal under such conditions that any of said collision detecting means detects a collision and the acceleration comparing means referring to the acceleration sensor mounted adjacent to the acceleration sensor referred to by said collision detecting means detecting the collision has detected an acceleration equal to or more than the set value during the predetermined past time period before the collision detection.

5. (Original) A collision determination system according to claim 3, wherein a control unit including said collision detecting means, acceleration comparing means and actuating signal outputting means is mounted in a position different from that of said acceleration sensors.